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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,285	12/22/2005	Johannes Joseph Schleipen	NL030750US1	5725

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EXAMINER	
YODICHKAS, ANEETA	
ART UNIT	PAPER NUMBER
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/562,285	SCHLEIPEN ET AL.	
	Examiner	Art Unit	
	Aneeta Yodichkas	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-5, 7-11, and 13-20** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,675,599 to *Abe et al*.

As to **claims 1 and 7**, *Abe* discloses a method of controlling a diode laser device which is operable to receive a control signal and to output an optical signal when the control signal exceeds a threshold value, and a method of controlling a diode laser device in an optical system, the system including a laser diode device a controller, wherein the laser diode device is operable to receive a control signal from the controller and to output an optical signal when the control signal exceeds a threshold value, the methods comprising acts of: supplying, to the diode laser device as the control signal and at a predetermined turn-on time, a write bias signal having a value which exceeds the threshold value, wherein the threshold value is a lasing threshold for the diode laser device (Fig. 1, column 2, lines 41-42, column 4, lines 5-8), where the write bias signal is the bias electric current being larger than the corresponding current to the threshold voltage, and supplying to the diode laser device, as the control signal (1) and at a predefined time before the predetermined turn-on time, a pre- bias signal, which has a magnitude less than the threshold value and extends for a time period to immediately

before the write bias signal (Fig. 1, column 2, lines 41-44), where electric input signal (1) is supplied before the write bias signal, wherein the predefined time (T_d), magnitude, and time period of the pre-bias signal are selected to tune an output power profile of the output optical signal to a desired profile (Fig. 4(a) and 4(b), column 3, lines 26-38), where the delay time (T_d) is the predefined time, the magnitude is the current value, and the time period is the start time to the delay time (T_d).

As to **claims 2 and 8**, *Abe* discloses the method, wherein the pre-bias signal (1) comprises a series of pre-bias pulses, having respective predefined times, magnitudes and extents, which are selected to tune the output optical signal to have a desired power profile (Fig. 1, column 2, lines 41-42), where electric input signal (1) is a series of pulses.

As to **claims 3 and 9**, *Abe* discloses the method, wherein the pre-bias signal (1) is a stepped value (Fig. 1, column 2, lines 41-42), where electric input signal (1) is a series of steps.

As to **claims 4 and 10**, *Abe* discloses the method, wherein the predetermined turn-on time is defined by a clock signal (Fig. 1, column 2, lines 41-42), where electric input signal (1) is a uniform pulse waveform, which is a clock signal.

As to **claims 5 and 11**, *Abe* discloses the method, wherein the predetermined turn-on time is determined by a required output power profile of the output optical signal (Fig. 4(a) and 4(b), column 3, lines 26-38), where the turn on time is determined by the value of bias current (I_b).

As to **claim 13**, *Abe* discloses an optical system comprising, a controller operable to output a control signal (1) (Fig. 1, column 2, lines 41-42), where the electric input signal (1) is set from a controller; and a laser diode device operable to receive a control signal from the controller, and to output an optical signal when the control signal exceeds a threshold value, wherein the controller is operable to output to the laser diode device, as the control signal and at a predetermined turn-on time, a write bias signal having a value which exceeds the threshold value to the laser diode device, wherein the threshold value is a lasing threshold for the diode laser device (Fig. 1, column 2, lines 41-42, column 4, lines 5-8), where the write bias signal is the bias electric current being larger than the corresponding current to the threshold voltage, and wherein the controller is operable to output to the laser diode device, as the control signal (1) and before the predetermined turn-on time, a pre-bias signal to the laser diode device, which pre-bias signal has a magnitude less than the threshold value and extends for a time period to immediately before the write bias signal (Fig. 1, column 2, lines 41-44), where electric input signal (1) is supplied before the write bias signal, wherein the predefined time (T_d), magnitude, and time period of the pre-bias signal are selected to tune an output power profile of the output optical signal to a desired profile (Fig. 4(a) and 4(b), column 3, lines 26-38), where the delay time (T_d) is the predefined time, the magnitude is the current value, and the time period is the start time to the delay time (T_d).

As to **claim 14**, *Abe* discloses the optical system, wherein the controller is operable to supply a pre-bias signal comprising a series of pre-bias pulses, having

respective predefined times, magnitudes and extents, which are selected to tune the output optical signal to have a desired power profile (Fig. 4(a) and 4(b), column 3, lines 26-38), where the delay time (T_d) is the predefined time, the magnitude is the current value, and the time period is the start time to the delay time (T_d).

As to **claim 15**, *Abe* discloses the optical system, wherein the controller is operable to supply a multi-valued pre-bias signal (1) to the laser diode device (Fig. 1, column 2, lines 41-42), where electric input signal (1) is multi-valued.

As to **claim 16**, *Abe* discloses the optical system, wherein the controller is operable to output to the laser diode device as the control signal and before the predetermined turn-on time, a pre-bias signal, which has a value less than the threshold value, and is defined by a clock signal of the system (Fig. 1, column 2, lines 41-42), where electric input signal (1) is the control signal which is a pulsed waveform, or clock signal.

As to **claim 17**, *Abe* discloses the optical system, wherein the controller is operable to output to the laser diode device as the control signal and before the predetermined turn-on time, a pre-bias signal which has a value less than the threshold value, wherein the controller is operable to determine the predetermined turn-on time by a required output power profile of the output optical signal (Fig. 4(a) and 4(b), column 3, lines 26-38), where the turn on time is determined by the value of bias current (I_b).

As to **claim 18**, *Abe* discloses the optical system, wherein the controller is operable to output to the laser diode device as the control signal and before the predetermined turn-on time, a pre-bias signal which has a value less than the threshold

value, wherein the controller is operable to determine the value of the pre-bias signal by a required output power profile of the output optical signal (Fig. 4(a) and 4(b), column 3, lines 26-38), where the bias current (I_b) is based on the relationship between delay time and threshold and laser diode current.

As to **claims 19 and 20**, *Abe* discloses the method, comprising an act of selecting adjusting values of the predefined time (T_d), magnitude, and time period of the pre-bias signal for tuning the output power profile of the output optical signal (Fig. 4(a) and 4(b), column 3, lines 26-38), where the delay time (T_d) is the predefined time, the magnitude is the current value, and the time period is the start time to the delay time (T_d).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 6 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,675,599 to *Abe et al.* in view of U.S. Patent No. 5,815,477 to *Kimura et al.*

As to **claims 6 and 12**, *Abe* is deficient in disclosing the method, wherein the predefined time, magnitude, and time period of the pre- bias signal are selected for tuning a position of the output optical signal to coincide with a channel bit clock of an optical recording system.

However, *Kimura* discloses the method, wherein the predefined time, magnitude, and time period of the pre- bias signal are selected for tuning a position of the output optical signal to coincide with a channel bit clock of an optical recording system (Fig. 14, column 11, lines 42-60), where cycle time (T_p) is the time, the magnitude is the level of the power levels, and the time periods are T_{fb} and T_{rb}.

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to have modified the method of controlling a diode laser as taught by *Abe* by including the laser diode in an optical system as taught by *Kimura*. The suggestion/motivation would have been in order to reproduce the recorded information on the optical disc (Kimura, column 1, lines 40-42).

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aneeta Yodichkas whose telephone number is (571) 272-9773. The examiner can normally be reached on Monday-Thursday 8-5, alternating Fridays, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge L Ortiz-Criado/
Primary Examiner, Art Unit 2627

/A.Y./
5/14/09